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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,846	01/26/2006	Dan Raphaeli	3415/15	8085
44596 7590 01/06/2010 DR. MARK M. FRIEDMAN C/O BILL POLKINGHORN - DISCOVERY DISPATCH 9003 FLORIN WAY UPPER MARLBORO, MD 20772				
EXAMINER HOLLOWAY III, EDWIN C				
ART UNIT		PAPER NUMBER		
2612				
NOTIFICATION DATE		DELIVERY MODE		
01/06/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

## Application No.

10/565,846

## Applicant(s)

RAPHAELI, DAN

## Examiner

Edwin C. Holloway, III

## Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***EXAMINER'S RESPONSE***

1. In response to the application with preliminary amendment filed 1-26-08, the amendment has been entered and the application has been examined. The examiner has considered the presentation of claims in view of the disclosure and the present state of the prior art. And it is the examiner's position that the claims are unpatentable for the reasons set forth in this Office action:

***Information Disclosure Statement***

2. The information disclosure statement filed 1-12-09 has been considered except for "Antenna Theory Analysis and Design" because the IDS fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Only a one page cover of this NPL document is included in the file record. Also, no date is listed for this document.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. Claim 16 recites the limitation "said at least one additional directional transmit command" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creek (US 5771002) in view of Anders (US 4656463) or Chen (US 6300905).

Creek discloses a locator method and system including a handheld master unit that identifies and interrogates a satellite unit RF tag with a command from a directional antenna. The satellite unit sends a response signal synchronized to the command. Amplitude (signal strength) is measured and indicated. The master unit includes audible and visual indication satellite unit location. See abstract, col. 7 lines 30-41, col.13 lines 50-67.

Anders discloses an analogous art RF tag locating method and system including a handheld interrogator with audible, visual and vibratory location indication. The interrogator antenna may be a phased array with azimuth and bearing movement. The location and indication includes range (distance) by time interval (round trip delay) and azimuth/bearing measured by the phased array using known radar ranging. See fig. 29, col. 24 Line 52 - col. 25 ~ 2, col. 37 lines 6 - 37, col. 8 line 16 - col. 39 line 22. Amplitude is also measured (col. 6 lines 25-30) to determine the strongest signal.

Chen discloses an analogous art locating system measuring round trip delay to determine distance and amplitude measurements from a multi sector antenna to determine angle of arrival. See the abstract and col. 6 lines 31-51.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in Creek the measuring and indication of round trip delay in addition to amplitude in view of Anders disclosing reception interval measuring to allow use of radar ranging or Chen disclosing measuring round trip delay and amplitude to easily determine location or position using measurements from only a single station. It further would have been obvious to have included the phased array and azimuth indication of Anders or Chen in order to allow direction indication without the need of the user to manually turn in a circle to fine the direction of maximum signal.

8. Claims 2-4, 6-10 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creek (US 5771002) in combination with Anders (US 4656463) or Chen (US 6300905) as discussed above and further in view of Wang (US 5912644) or

MacLellan (US 5940006).

Wang and MacLellan disclose analogous art RF tag interrogation/location systems/methods including wideband (CDMA / spread spectrum) communication. See the abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included in the combination applied above the wideband communication, of Wang or MacLellan for known advantages such as reduced interference.

9. Claims 5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Creek (US 5771002) in combination with Anders (US 4656463) or Chen (US 6300905) further in view of Wang (US 5912644) or MacLellan (US 5940006) as applied above and further in view of Gelvin (US 6832251).

In an analogous art, Gelvin teaches dealing with a multipath effect that occurs when communicating in doors. The reader effectively overcomes the multipath effect by using the first multipath arrival of a response as the range estimate. The above system uses the response signals to determine distance using the response signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used the first multipath component of the received response signals for determining the distance of the tags in the above system.

#### ***Double Patenting***

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent

and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-124 of U.S. Patent No. US 7511604 in view of Chen (US 6300905).

The claims of the '604 patent include the limitation of claims 1-22 of the instant application, such as measuring round trip delay, but measuring amplitude is not expressly claimed.

Chen discloses an analogous art locating system measuring round trip delay to determine distance and measuring amplitude from a multi sector antenna to determine angle of arrival. See the abstract and col. 6 lines 31-51.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the invention claimed in the '604 patent the

measuring round trip delay and amplitude in Chen to easily determine location or position using measurements from only a single station.

***CONTACT INFORMATION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edwin C. Holloway, III whose telephone number is (571) 272-3058. The examiner can normally be reached on M-F from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman, can be reached on (571) 272-3059.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/4/2010  
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